Georgia Department of Transportation

Office of Materials and Research

Standard Operating Procedure (SOP) 31 Inspection of Treated Timber Products

I. General

The Inspection Services Branch of the Office of Materials and Research is responsible for administering the Department's timber inspection program to assure that treated timber used on highway projects conforms to Specification requirements both before and after treatment. The inspection will be conducted prior to, during, and after treatment. The inspection will be conducted by Office of Materials and Research personnel or by a commercial testing agency approved by the Department. When timber is manufactured at one plant and shipped to another plant for treatment, the inspection prior to and after treatment will be at the treatment plant.

Acceptable timber will be hammer stamped in "white" prior to treatment and again after treatment on the opposite end. The hammer stamps used must be numbered so as to identify the inspector and there must be a distinct difference between the stamp used before treatment and the one used afterward.

It is expected that all timber inspected and approved under these provisions will be utilized in Department work.

<u>Qualified Products List (QPL) 50, "Approved Wood Preserving Plants"</u>, published by the <u>Office of Materials and Research</u>, contains a list of approved wood preserving plants.

II. Applicable Documents

Prior to being placed on the List of Approved Wood Preserving Plant the authorities of the treating plant shall have copies of and be familiar with the following documents:

Georgia DOT Specification Sections 859.2.04, 860, 861, 862, and 863

AASHTO M133

AWPA Standard as applicable for the type of timber being treated

III. Qualified Products List Approval

A. Plant Inspection

The plant owner or manager will schedule an inspection of the plant with the Inspection Services Branch of the Office of Materials and Research. The plant will provide and equip a laboratory with all necessary supplies and equipment to analyze the preservatives, perform assays and to conduct other test required in AWPA M2. Certifications of accuracy of all recorders, thermometers, gauges and scales, as required in AWPA M3, must be available for review by Department inspectors.

B. Certification

Owners or managers of wood preserving plants participating in this program shall provide the Inspection Services Branch of the Office of Materials and Research a notarized yearly guarantee certifying that all treated timber supplied for Department work will meet applicable specification requirements. This statement shall be signed by a responsible officer of the company who has the authority to bind the company, and the statement shall be notarized. A "Yearly Certification and Guarantee" is attached for your completion and submittal to the Department.

C. Quality Control

All wood preserving plants included in the <u>Qualified Products List</u> must have a Quality Control Program in accordance with AWPA M3.

D. Removal from the Qualified Products List

When a plant is found to be lacking in quality control or when the Department loses confidence in their ability or intention to supply satisfactory treated timber, the plant will be removed from the <u>Qualified Products List</u>. Reinstatement to the <u>Qualified Products List</u> will not be allowed until the Department is convinced that the plant will comply with all applicable requirements.

IV. Inspection Prior to Treatment

All timber must be manufactured, graded, and ready for treatment at the time of the inspection. It will be stacked in lots easily accessible to the inspector. A lot will normally represent the amount of timber required for one charge in the treating cylinder. Inspection prior to treatment will be to determine whether the timber is in conformance with the applicable Section of the Specifications. If 3% or less of the pieces fail to meet Specifications for any one defect or 5% or less for all defects the lot may be accepted provided the failing pieces are removed from the lot and are replaced by satisfactory materials. When more than 3% of the timber fails for any one defect or more than 5% fails for all defects the inspection will be terminated and the lot rejected until the producer calls and removes the unsatisfactory pieces in the entire lot and replaces them with acceptable material. The lot will then be subject to the same sampling and inspection procedures as for the original inspection. The inspector will mark each acceptable piece in each acceptable lot with the "pre-treatment" hammer stamp prior to treatment.

V. Preservatives

Sampling frequency, procedures, and analysis of preservatives will be in accordance with AWPA M2. A sample will be required from each single charge or from the first charge of consecutive treatments in a series and

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thereafter one random sample will be required from every five consecutive charges from the same working tank. Preservative samples shall be taken directly from the treating cylinder when possible. When it is impossible to sample the preservative from the treating cylinder it shall be taken from the working tank.

VI. Treatment

The inspector should normally be present during the treatment process. In the event he is not present, the temperature, pressure, and vacuum data will be taken from the recording charts.

VII.Inspection after Treatment

The inspector will inspect the timber after treatment and will prepare a treating report which includes applicable information listed in AWPA M2, Section 7.

Cores will be taken for penetration and retention determination, from at least 20 pieces selected at random from each charge for all materials except piling. Each pile in each charge must be cored. Cores will be taken at the approximate midpoint of each piece and directed toward the pith.

If 10% or less of the cores fail to meet penetration or retention requirements the charge will be accepted but all pieces failing to meet such requirements will be rejected but may be subjected to re-treatment. If more than 10% of the cores fail to meet penetration or retention requirements the entire charge shall be rejected but may be retreated and offered for re-inspection. Only one re-treatment will be allowed and any damage due to retreatment will be cause for rejection.

All core holes must be filled with tight fitting treated cylindrical plugs.

After inspecting the treated timber, each acceptable piece will be hammer stamped on the end opposite the end marked prior to treatment.

VIII.Reporting

A. Inspector's Responsibility

A treating report will be prepared by the inspector, which includes the applicable information listed in AWPA M2 and will be furnished to the Inspection Services Branch of the Office of Materials and Research.

B. Responsibility of Treating Plants and Treated Wood Suppliers

A shipment report will be furnished to the Inspection Services Branch of the Office of Materials and Research within five (5) days of each shipment. This report must show project number or stock material (if purchased as stock material), purchaser, sizes, quantities, and preservative type. In addition, a copy of this report should be sent to the Project Engineer with each shipment.

| Georgene M. Geary, P.E. | |
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| State Materials and Research Engineer | |

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| | Glenn W. Durrence, P.E. |

Director of Construction

ANNUAL GUARANTEE

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| This is to guarantee that all(Ty | pe of Material) furnished to State of Georgia projects by |
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| (Company Name and Location) during | the next twelve (12) months will meet the appropriate |
| governing requirements of the Georgia Departm | nent of Department of Transportation Specifications. I further |
| warrant that material furnished to State of Geor | gia projects will be replaced without cost to the purchaser and |
| State of Georgia when found not in conformity v | with any of the specified requirements. I accept full |
| responsibility for determining the governing Spe | ecifications and details which apply to each other. |
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| said organization to the above warranty and cer | tification. |
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